

## **REMARKS**

### **1. Claim Rejections – 35 U.S.C. § 103**

In the Office Action mailed on May 22, 2006, claims 1-10, 15, 17, and 19 were rejected under 35 U.S.C. § 103 as being unpatentable over Heron (U.S. Patent No. 6,055,478) and Ottesen et al. (U.S. Patent No. 6,067,203). Claims 16 and 18 were rejected under 35 U.S.C. § 103 as being unpatentable over Heron and Ottesen et al. in further view of Codilian et al. (U.S. Patent No. 6,892,249). Claims 11-14 and 20 were rejected under 35 U.S.C. § 103 as being unpatentable over Heron and Codilian et al. Applicants respectfully traverse these rejections.

#### **A. Claims 1-7**

Independent claim 1 as amended recites “the memory controller being operable to permit access of said part of the map data only from said second memory section and restrict access to said first memory section when the vehicle is above the predetermined altitude.” On pages 2-3, the Office Action states that “Heron, however, does fail to disclose a first memory section for storing map data, a second memory section capable of storing part of the map data stored within the first memory section and a memory controller for causing the map data stored in the first memory section to be stored in the second memory section when the vehicle reaches a predetermined altitude based upon the positional information.”

Likewise, the portions of Ottesen et al. cited in the Office Action also do not disclose reading map data from two memory devices, or the capability of switching from which memory device the map data is being read. Ottesen et al. only discloses reading data from a rotary medium and storing the data in a buffer as part of the read operation. Col. 8, ll. 44-65.

Additionally, Ottensen et al. states that “when the atmospheric pressure drops below a desired threshold it may be desirable to increase the spindle velocity,” rather than not access the disk. Col. 6, ll. 20-22. Hence, Ottensen et al. teaches away from the present invention.

Accordingly, Applicants respectfully submit that claim 1 is allowable. Claims 2-7 depend upon independent claim 1 and should be allowable for similar reasons.

Additionally, claim 3 recites the “position detector calculates the altitude of the vehicle based on the latitude and longitude of the vehicle position from the map data stored in said first memory section.” On page 3, the Office Action states that a “GPS receiver which is well known in the art to be able to receive altitude information from and would be obvious to use in order to determine how high the vehicle is traveling.” However, claim 3 is directed toward using the map data to determine vehicle altitude.

Claim 4 recites the “memory controller causes the map data covering the position of the vehicle and its surroundings to be stored in said second memory section based upon said positional information.” On page 4, the Office Action states that “Otteson et al. discloses having multiple memory sections for different data depending on the altitude and environmental areas the disk drive will be working in” without any citation. The portions of Otteson et al. cited in the Office Action merely disclose transferring data thru a buffer at a transfer rate based upon which zone on a disk the data is to be written. Col. 7, ll. 3-12; Col. 8, ll. 44-65.

Claim 6 recites “wherein said predetermined altitude is about 3,000 m.” On page 4, the Office Action states that “Otteson et al. does disclose that [the data] does need to be moved at high elevations.” However, Otteson et al. always transfers data, whether at high or low evaluation. The focus of Otteson et al. is to alter the disk velocity based upon environmental conditions, not determining whether or not to transfer data. Abstract.

Claim 7 recites “the map data stored in said first memory section and said second memory section includes route data from which a guidance route to the destination can be obtained by performing a route search.” On page 4, the Office Action states that “it’d be obvious to move the necessary data over to the second memory when at a high elevation”

citing Col. 6, ll. 7-30 of Heron. However, the portions of Heron cited do not disclose or suggest moving data from a first memory to a second memory when at a high elevation.

**B. Claims 8-10**

Independent claim 8 as amended recites “the memory controller being operable to permit access of said part of the map data only from said second memory section and restrict access to said first memory section when the measured atmospheric pressure is less than the predetermined value.” As noted above, Heron and Ottesen et al. do not disclose switching between memory devices based upon altitude or atmospheric pressure. Accordingly, Applicants respectfully submit that claim 8 is allowable. Claims 9 and 10 depend upon claim 8 and should be allowable for similar reasons.

**C. Claims 11 and 12**

Independent claim 11 as amended recites “an access section for accessing only one of said first memory device or said second memory device and restricting access to the other based upon a result measured by said altitude measuring section.” On page 7, the Office Action acknowledges that Heron does not disclose “an access section for accessing the first memory device or the second memory device based upon a result measure by the altitude measuring section to read the map data from the first or second memory device.”

Likewise, Codilian et al. does not cure this deficiency. The portions of Codilian et al. cited disclose that user data may be received from a host and cached in a memory 42 before being written to a disk 22. Col. 5, ll. 23-32; *see also* Figure 5. Hence, Codilian et al. does not disclose accessing only one of two memory devices and restricting access to the other based upon a measurement result of an altitude measuring device. Accordingly, Applicants respectfully submit that claim 11 is allowable.

Claim 12 depends upon independent claim 11 and should be allowable for similar reasons. Additionally, claim 12 as amended recites “wherein said access section accesses said second memory device when it is determined that the vehicle has reached said predetermined altitude.” The portions of Codilian et al. cited do not disclose making a determination of whether a vehicle has reached a predetermined altitude or not.

**D. Claim 13**

Independent claim 13 as amended recites “a memory controller for causing the music data and the map data stored within said magnetic storage medium to be stored within said memory device when the vehicle reaches a predetermined altitude based upon said positional information and subsequently only permits access to the music data and the map data from said memory device and not from said magnetic storage medium if the vehicle remains at or above the predetermined altitude.”

On pages 8 and 9, the Office Action acknowledges that “Heron fails to disclose a second memory device capable of storing music data and the map data stored in the magnetic storage medium and a memory controller for causing the music data and the map data stored within the magnetic storage medium to be stored within the memory device when the vehicle reaches a predetermined altitude based upon the positional information.” The portions of Codilian et al. cited do not cure these deficiencies, as noted above. The portions of Codilian et al. also do not disclose restricting access to a memory device based upon altitude. Therefore, Applicants respectfully submit that claim 13 is allowable.

**E. Claim 14**

Independent claim 14 as amended recites “a memory controller that, when said route data includes a road located at or above a predetermined altitude, transfers the map data of areas located at or above the predetermined altitude, from said magnetic storage device to said memory device and subsequently restricts access to the magnetic storage device while

the vehicle is traveling a road located at or above the predetermined altitude.” For the reasons stated above with respect to independent claims 11 and 13, Applicants respectfully submit that independent claim 14 is allowable.

**F. Claims 15-19**

Independent claim 15 as amended recites “saving map data stored in a first memory to a second memory when the vehicle reaches a predetermined altitude and reading the map data stored within the second memory instead of reading the map data from the first memory as a function of altitude.” For the reasons stated above with respect to independent claim 1, Applicants respectfully submit that independent claim 15 is allowable.

Claims 16-19 depend upon claim 15 and should be allowable for similar reasons. Additionally, claim 16 recites “measuring, when the vehicle subsequently returns to or goes below the predetermined altitude, an interval during which it has been positioned above said predetermined altitude, wherein, if said interval is shorter than a predetermined interval, then the access to the second memory is continued.” On page 6, the Office Action states that Codilian et al. discloses “an interval of time that the disk drive would wait before switching over to working back in a low altitude environment” because Codilian et al. mentions fluctuations in altitude. However, the portions of Codilian et al. cited do not disclose how the device of Codilian et al. responds to a fluctuation in altitude.

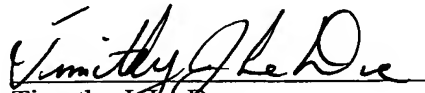
**G. Claim 20**

Independent claim 20 as amended recites “saving music data and map data stored within a first memory to a second memory when the vehicle reaches a predetermined altitude and subsequently reading the data stored within the second memory.” Independent claim 20 as amended also recites “restricting access to the first memory while the vehicle remains at or above the predetermined altitude.” For the reasons stated above with respect to independent claims 11 and 13, Applicants respectfully submit that independent claim 20 is allowable.

## SUMMARY

Applicants respectfully submit that all of the pending claims are in condition for allowance and seek allowance thereof. If for any reason the Examiner is unable to allow the application but believes that an interview would be helpful to resolve any issues, she is respectfully requested to call the undersigned at (312) 321-4277.

Respectfully submitted,

A handwritten signature in cursive script, reading "Timothy J. Le Duc", written over a horizontal line.

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